

UNIVERSITY OF CALIFORNIA
MUSEUM OF VERTEBRATE ZOOLOGY

Lilleland, O.

Nevada: Nye County

1933

Zoology Field Class, June 29 - Aug. 2, 1933
Nevada: Nye County

Lilleland, O.

Catalog of specimens


pp. 1 - 8

Itinerary

9 - 40

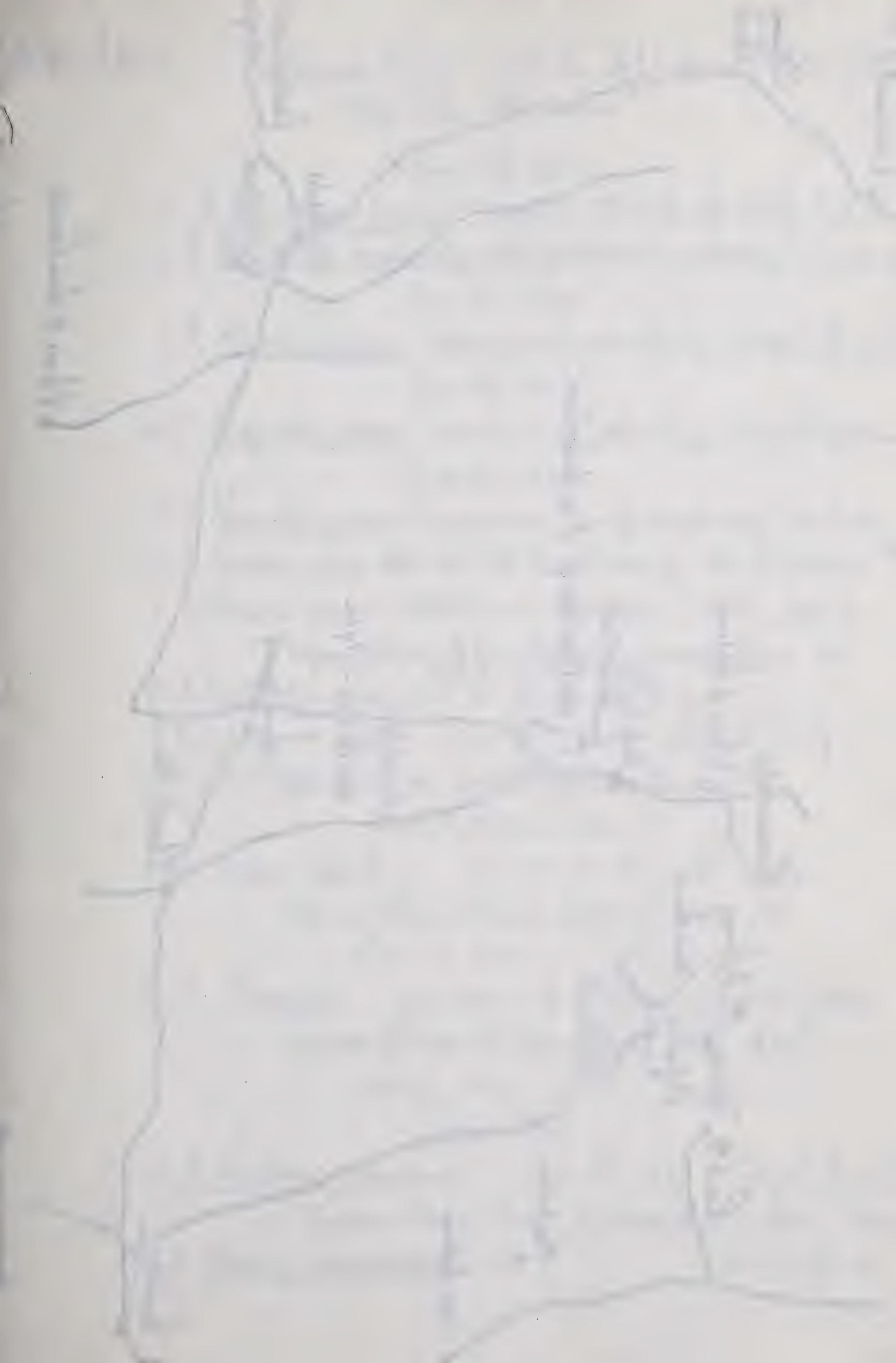
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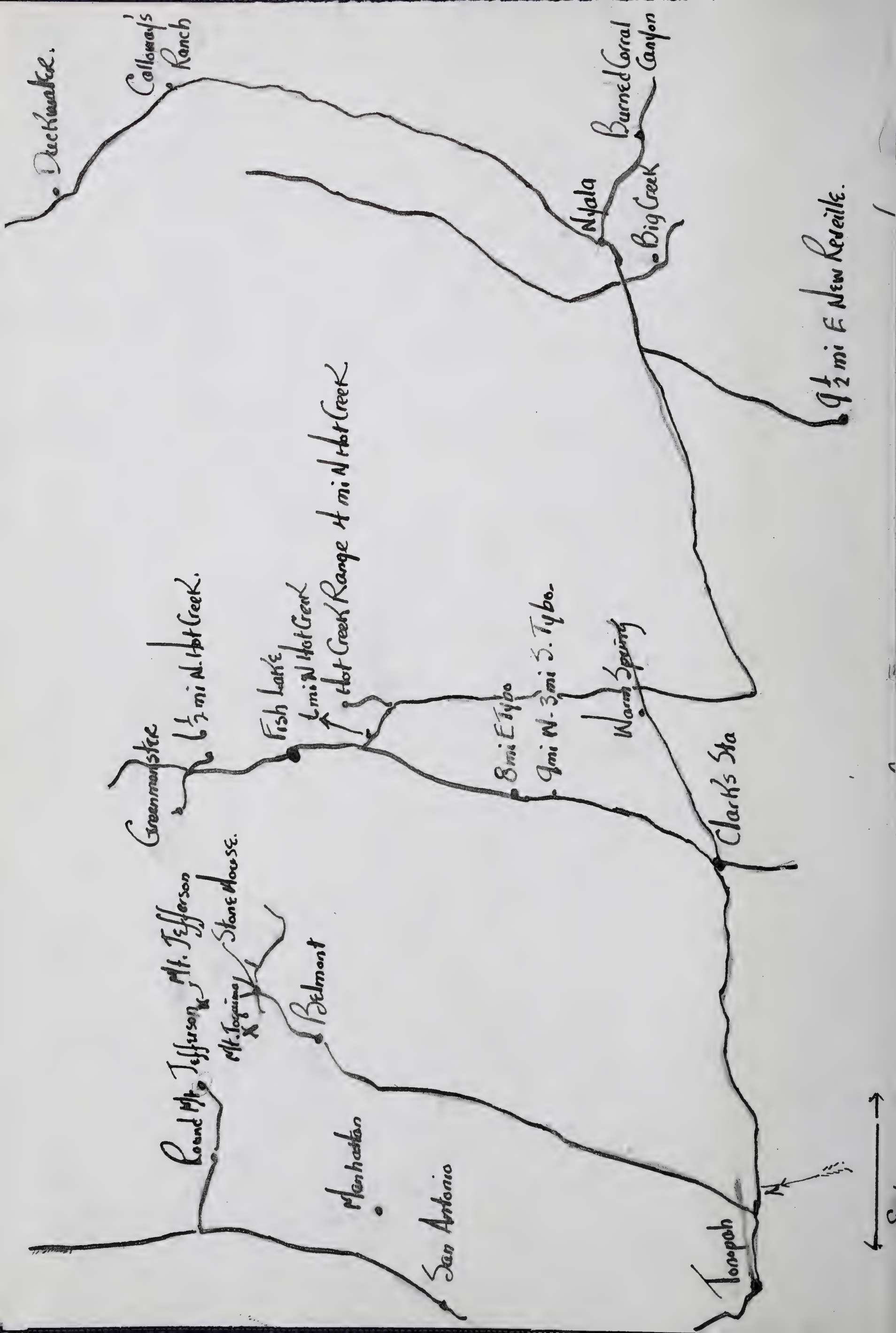
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Lilleland 1933

Toquima Range, 1 mi. E Jefferson, 7600 ft.,
Nye Co., Nevada.

June 29, 1933.

1. ♂ Neotoma lepida 210-82-28-25. Wt. 58.4g. Coll. E.R. Hall.
2. ♂ Peromyscus maniculatus (skin only) 145-55-17-17. Wt 18.5g. Coll. E.R. Hall.

June 30, 1933.

3. ♂ Microtus mordax 115-52-20-15. Wt. 43.9g. Coll. W.C. Russell.

June 29, 1933.

4. ♀ Perognathus parvus 165-85-22-8. Wt 13.8g. Coll. F.W. Gorham.

June 30, 1933.

5. ♀ Perognathus parvus (1 embryo x 1mm.) 140-57-23-8. Wt 20.8g. Coll. F.C. Gale Jr.
6. ♂ Neotoma lepida ~~260~~ 105-31-26 Wt. 108.3g. Coll. F.C. Gale Jr. ⁷⁶⁵⁰ ft.
7. ♀ Neotoma lepida 255-95-31-30. Wt 151.7g. Coll. F.C. Gale Jr.

Toquima Range, S. slope Mt. Jefferson, 8000 ft., Nye Co., Nev.

July 3 - 1933

8. ♂ Eutamias m. pictus 185-80 26-15. Wt. 40g.

9. ♂ Eutamias m. pictus 210-90-33-18 Wt 56.4g.

10. ♂ Neotoma lepida Toquima Range, 1 mi. E Jefferson, Mine shaft,
7600 ft., Nye Co. Nev.

10. ♂ Neotoma lepida 250-75-30-30. Wt. 150.8g.

Toquima Range, 1½ mi. E Jefferson, 8000 ft.
Nye Co., Nev.

11. ♂ Thomomys 214-68-30-6. Wt 127.6g. Coll. F.W. Gorham.

Toquima Range, N. slope of Toquima Peak, 8600 ft.,
Nye Co., Nev.

July 2 - 1933.

- ✓ 12. ♂ Nucifraga columbiana Wt 150g. Coll. J.R. Arnold.

Toquima Range, 1 mi. E Jefferson, 7600 ft., Nye Co., Nev.

- ✓ 13. ♀ Turdus migratoria Coll. W.C. Russell.

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Toquima Range, N. slope Toquima Peak 8800 ft. ²
Nye Co., Nev.

July 2 - 1933.

- ✓ 14. ♂ Junco annectens Wt. 18.7g (8800 ft.)
✓ 15 ♂ Dendroica auduboni Wt. 11.2g (8000 ft.)
✓ 16 ♂ Parus gambeli Wt. 16.5g (9000 ft.)

Toquima Range $1\frac{3}{4}$ mi. E Jefferson 7800 ft.,
Nye Co., Nev.

July 5, 1933.

17. ♀ Eutamias dorsalis 210-90-30-18 Wt. 51.1g.
18 ♀ Eutamias m. pictus 190-80-27-15 Wt. 28.8g.

$10\frac{1}{2}$ mi. E Toquima Peak, Monitor Valley,
7000 ft., Nye Co., Nev.

July 7, 1933.

- 19 ♀ Microdipodops 160-89-25.5-9.5 Wt. 11.8g.
20 ♀ Microdipodops 155-85 24.7-9 Wt. 12.8g.
21 ♂ Microdipodops 158-85-25-10 Wt. 13.2g.
22 ♀ Microdipodops 150-79-25-9.5 Wt. 11.6g.
23 ♂ Microdipodops 152-78-24.5-10 Wt. 12.6g.
24 ♀ Microdipodops 156-86-25.8-9.5 Wt. 13.8g.
25 ♂ Microdipodops 149-78-24.8-8 Wt. 13.1g.
26 ♂ Microdipodops 151-81-25-10 Wt. 12.3g.
27 ♂ Microdipodops 155-84-25-11 Wt. 13.3g.

Ralston Valley, $15\frac{1}{2}$ mi. NE Tonopah, 5800 ft.,
Nye Co., Nev.

July 9 - 1933

- 28 ♂ Perognathus nevadensis 135-65-19-7.
29 ♀ Microdipodops 152-83 22-10
30 ♀ Microdipodops 154-82-27-10
31 ♂ Microdipodops 154-88 23-12.

Lilleland 1933.

Ralston Valley, 15 1/2 mi NE Tonopah, 5800 ft.,
Nye Co., Nev.

July 9, 1933.

32 ♀ Microdipodops 152-81-23-11.

33 ♀ Microdipodops. 135-72-24-9.

34 ♂ Phrynosoma platyrhinus

3 Hot Creek Range, 8 mi. W Tybo, 6700 ft., Nye Co., Nev.

July 10-1933

35 ♀ Eutamias dorsalis. 218-90-32-19. Wt. 57.4g.

36 ♀ Eutamias dorsalis 215-90-31-19 Wt 58.3g

37 ♀ Eutamias quadri vittatus 215-85-31-17 Wt 63.3 (6900 ft)

38 ♂ Peromyscus crinitus. (skull only) 153-70-20-16 Wt 13.9g.

39 ♀ Eutamias quadri vittatus. 228-95-30-19 Wt 67.2g.

July 11-1933

40 ♀ Neotoma lepida 280-118-30-29 Wt 127.3g.

41 ♂ Eutamias dorsalis 210-85-32-20. Wt. 52.3,

42 ♀ Peromyscus maniculatus 172-77-19-17. Wt. 22g.

43 ♂ Peromyscus maniculatus. 155-66-20-19 Wt 18.8g.

Monitor Range, Greenmonster Canyon, 7500 ft., Nye Co., Nev.

July 12-1933.
44 ♂ Peromyscus maniculatus. 185-87-22-28- Wt. 23g.

45 ♂ Peromyscus maniculatus. 147-68-19-17 Wt. 14.1g.

46 ♂ Peromyscus maniculatus 140-61-20-18 } Wt 15.4g.

47 ♀ Peromyscus maniculatus. 146-59-18-17 } Coll. S.O. Durrant
Wt. 20.6g

48 ♂ Peromyscus maniculatus 153-63-18-17 Wt. 21g.

July 13, 1933.

49 ♀ Eutamias m. pictus 170-67-27-13 Wt 33.9g.

50 ♀ Peromyscus maniculatus 172-75-20-18 Wt 25.2g

51 ♂ Microtus mordax. 185-62-20-7 Wt 37.5g.

✓ 52 ♂ (Blue Jay) Aphelocoma woodhouseii. Wt 81.3g

✓ 53 ♀ (Warbler) Geothlypis tolmiei Wt 10.8g.

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Monitor Range, Greenmonsters Canyon, 1500 ft.,
Nye Co., Nev.

July 14, 1933.

- 54 ♀ Collospermophyllus. 295-110-39-18 Wt 204.6 (9000 ft.)
- ✓ 55 ♂ Aphelocoma woodhouseii (young) Wt 78.2 (8500 ft.)
- ✓ 56 ♀ Sage Hen. Wt 1048.6g. (9000 ft.)

July 15-1933

- ✓ 57 ♀ Blue Bird (mountain) Wt 25.1g.
Fish Spring Valley, Fish Lake, 6500 ft., Nye Co., Nev.

July 17-

- 58 ♀ Dipodomys ordii columbianus 235-120-39-11. Wt 49.5g. Coll. ER Hall.
Hot Creek Valley, 6 1/2 mi N Hot Creek, 5900 ft., Nye Co., Nev.

July 18

- 59 ♀ Dipodomys ordii columbianus 265-150-42-13 Wt. 54.7g.
- 60 ♀ Perognathus nevadensis. 135-72-17-7 Wt. 8g.
- 61 ♀ Perognathus nevadensis. 135-69-18-6 Wt 7.3g.
- 62 ♂ Perognathus nevadensis. 102-39-17-6 Wt 8.3g
- 62 ♀ Perognathus nevadensis. 138-71-19-7 Wt 8.8g.

Hot Creek Valley, 2-10 mi. N Hot Creek, 5900 ft.,
Nye Co., Nev.

- 63 Phrynosoma
- 64 Phrynosoma
- 65 Phrynosoma
- 66 Phrynosoma
- 67 Phrynosoma
- 68 Phrynosoma
- 69 Phrynosoma
- 70 Phrynosoma

Correct Spelling "Phrynosoma"

Lilleland 1933

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Hot Creek Valley, 1/4 mi W Hot Creek,
5900 ft., Nye Co., Nev.

July 19-1933.

- 71 ♂ Perognathus nevadensis. 129-62-18-6. Wt. 7.6g. (skull only)
72 ♂ Dipodomys m. levipes 250-139-42-12 Wt 39.1g.
74 ♀ Dipodomys^m levipes. 240-135-41-13 Wt 36.9g.
73 ♂ Dipodomys^m levipes. 287-160-42-8 Wt. 68.9g.

Hot Creek Valley, 4/5 mi. S Hot Creek 5900 ft., Nye Co., Nev.

- 75 ♀ Dipodomys ordii columbianus 225-128-39-12 Wt 37.9g

Hot Creek Valley, 3 1/2 mi E Hot Creek, 5650 ft.,
Nye Co., Nev.

July 20-1933

- 76 ♀ Onychomys l. brevicaudus. 130-29.5-18-19 Wt. 24.6g.
77 ♂ Dipodomys m. levipes. 260-150-43-12 Wt 57.5g.
78 ♀ Microdipodops. 155-82-24.2-11. Wt. 12.5g
79 ♀ Microdipodops. 154-78-24.5-11 Wt 14.6g.
80 ♂ Microdipodops. 147-80-24-10 Wt 10.4g
81 ♀ Microdipodops. 150-82-24-10 Wt 11.2g.
82 ♂ Microdipodops 153-84-24-10.5 Wt 13.1g
83 ♂ Microdipodops. 159-89 25.7-10.6 Wt 12.2g
84 ♀ Dipodomys m. levipes. 253-129-39.5-11 Wt 59.5g.
85 ♂ Dipodomys m. levipes. 251-130-40-12 Wt 33.1g.
86 Leopard Lizard.

Hot Creek Valley, 4 mi N Hot Creek, 6400 ft.,
Nye Co., Nev.

July 21-1933.

- 87 ♂ Peromyscus maniculatus 138-57-19-17 Wt 16.5g.
88 ♂ Peromyscus maniculatus. 145-58-19-17 Wt 18.3g.
89 ♂ Peromyscus maniculatus 145-57-19-17 Wt 13.9g

Lilleland 1933

N End Reveille Valley, Old Mill, 6200 ft.,
Nye Co., Nev.

July 22 - 1933

- 90 ♀ Microdipodops. 155-80-23.5-10 Wt. 14.8g.
91 ♀ Microdipodops. 162-85 24.8-9. Wt 12.2g
92 ♀ Onychomys leucogaster brevicaudus 145-46-21-12. Wt. 25.4g
93 ♀ Microdipodops 157-85-23.8-10.5 Wt. 12.5g.
94 ♀ Microdipodops. 164-87-24.8-10. Wt. 13.7g.
95 ♂ Microdipodops. 155-81-24.3-11 Wt 13g.
96 ♀ Microdipodops. (Skeleton only) 153-80-24-10- Wt 13.4g.
97 ♂ Dipodomys m. levipes. 269-150-41-14 Wt 54.8g
98 ♂ Dipodomys m. levipes 259-145-40-12 Wt 56.5g.
99 ♂ Dipodomys m. levipes. 271-149-41.5-13 Wt 58.2g.
100 ♂ Perognathus parvus. 165-85-22-8. Wt 18.3g.
101 ♂ Peromyscus maniculatus. 145-63-19-17 Wt. 14.1g.
102 ♀ Perognathus formosus (Yg.) 165 87 23-6 Wt. 13g.

Quino Canyon Mts., Big Creek, 5800 ft.,
Nye Co., Nev.

July 24. 1933.

- 103 ♀ Dipodomys ordii columbianus 232-124-38-13. Wt 43.2g.
104 ♂ Peromyscus crinitus. 167-89-19-20 Wt. 14.9g.
105 ♀ Peromyscus crinitus 153-75-18-19 Wt 13.2g.
106 ♂ Perognathus formosus. 176-93-23-9 Wt 16.3g
107 ♀ Perognathus formosus. 168 95-24-10 Wt. 13.1g.
108 ♂ Perognathus formosus. 166-97-24-10 Wt. 15.4g.
109 ♂ Peromyscus crinitus 163-84-19-20 Wt 15.5g
110 ♀ Peromyscus crinitus. 162-83-19-19 Wt. 13.8g

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Railroad Valley, 9 1/2 mi E New River
5200 ft., Nye Co., Nev.
July 25, 1933

- 111 ♂ Dipodomys m levipes 303-175-43-14 alt 82.6g.
112 ♂ Perognathus nevadensis 137-73-17-6 Wt 7.6g.
113 ♂ Perognathus nevadensis 128-68-19-6 Wt. 7.4g.
114 ♂ Dipodomys m. levipes 269-150-43-15
115 ♂ Dipodomys m levipes 275-160-42-14.

S End Hot Creek Valley, 2 1/2 mi Ex N Twin Spring
5400 ft., Nye Co., Nev. July 27-1933.

- 116 ♀ Dipodomys m levipes 262-151-41-15.
117 ♂ Perognathus nevadensis 122-62-18-7.
118 ♀ Perognathus formosus 185-105-23-8.
119 ♂ Perognathus nevadensis 129-72-19-6.
120 ♂ Perognathus formosus 185-103-24-10.
122 ♂ Dipodomys m. levipes 272-152 41-13
121 ♂ Perognathus nevadensis 120-58-19-8-

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Quinn Canyon Mts., 5 1/2 mi E Nye, 6300 ft., Nye Co., Nev.
July 27-1933

- 123 ♂ Rabbit (Cottontail) 395-53-94-80 Coll E R Hall.
Quinn Canyon Mts., Buena Corral Canyon, 6700 ft.,
Nye Co., Nev.

July 28-1933

- 124 ♂ Peromyscus maniculatus 179-75-21-19 alt 20.4g.
125 ♀ Peromyscus maniculatus 162-68-19-19 Wt 31.8g.
126 ♂ Peromyscus maniculatus 161-69-19-17 Wt 22.3g.
127 ♂ Peromyscus maniculatus 148-63-18-16 Wt. 15.7g
128 ♀ Peromyscus maniculatus 151-58-18-20 Wt 20.5g.
129 ♀ Eutamias m pictus (Skull only). 185-85-28-15

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Quinn Canyon Mts, Burned Corral Canyon, 7000 ft
Nye Co., Nev.

July 29. 1933.

- 130 ♂ Neotoma lepida 290-123-30-24 Wt 126.8g.
131 ♀ Neotoma. lepida. 215-87-30-23. Wt 55.4g.
132 ♀ Peromyscus truei 192-88-22-28 Wt 32.9g.
133 ♀ Peromyscus truei 205-100-22-28 Wt 30.9g
134 ♂ Peromyscus truei 183-88-23-27 Wt 18.7g.
135 ♀ Peromyscus truei 187-85-21-25 Wt 28.5g
136 ♀ Peromyscus truei (young) 140-62-20-18 Wt. 11.1g.
137 ♂ Peromyscus maniculatus. 163-68-19-20 Wt 23.6g

Quinn Canyon Mts, 7 mi E Nye, 7000 ft, Nye Co., Nev.

July 30.

- 138 ♂ Eutamias quadri vittatus. 205-90-31-20 Wt 51.4g.
✓ 139 ♂ Aphelocoma woodhouseii Wt. 80.4g.
✓ 140 ♂ Piranga ludoviciana Wt 33.4g.
✓ 141 ♂ Zamelodia melanocephala Wt. 49.6g.
✓ 142 (?) Hermi foras - lutescens. Wt 7.7g.
✓ 143 ♂ Oreospiza chlorura. Wt 31.9g.

140 should be under same locality
heading as numbers 138 and 139 -

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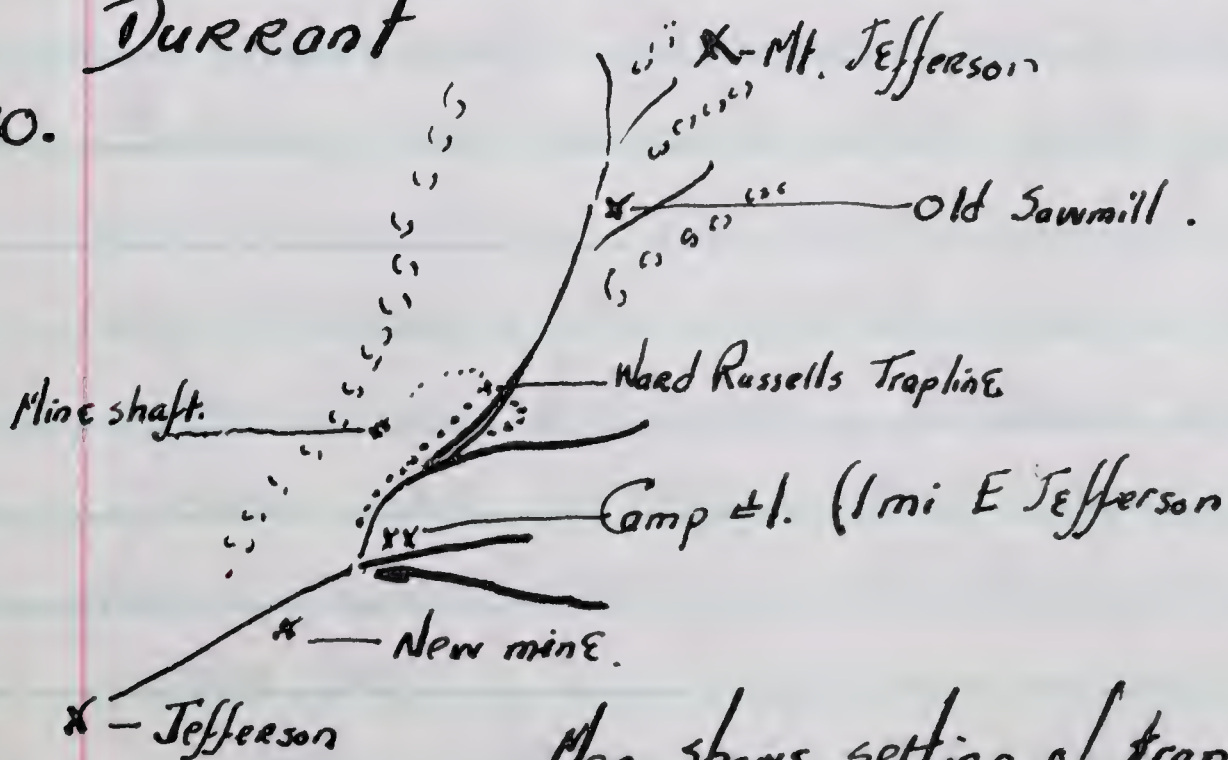
June 29.

Itinerary.

Left Berkeley 9¹⁵ am. June 27, in company with John R. Arnold, Wm. B. Davis, Stephen D. Durrant, Francis C. Gale Jr., Frank W. Gorham, E. Raymond Hall, Ward C. Russell and Paul T. Wilson.

We travelled in two trucks and a Roadster, via Carquinez Bridge, Davis, Sacramento, Roseville, Auburn, Truckee and Reno, Nev.; made overnight camp along main highway, 8 miles E of Reno. Left camp along main highway at 5²⁰ am. and drove by Fallon, E. Gate Austin, Millett's and Round Mountain to a point in Jefferson Canyon 1 mi. E, Jefferson (abandoned) 7600 ft. Elevation, in the Toiyabe Range, Nye Co., Nev., where we pitched camp at 6³⁰ p.m. Assisted in pitching tent and helped with other details in marking camp. Hall, Gorham and Durrant

June 30.



Map shows setting of traps. (Details over)

Lilleland 1933
June 30

Itinerary.

Went with Ward Russell and Paul Wilson into canyon NE of campsite to take instruction in setting out traps. Ward Russell was the instructor. Method followed briefly:- Setting for Neosorex with mouse traps baited with masticated oatmeal, traps set in narrow places below waterfalls and on small beaches. About thirty traps were set for Neosorex, the creek bed being ideal for the purpose. Brush rather open, slope quite uniform and not too steep. Intervals between traps about 40 feet. Noted that several trees were barked as we walked up canyon - these being mostly pines. About a half mile up the canyon we came to an outcropping rising steeply from the stream bed, to our left as we walked up canyon. This marked point of divergence from water course as Ward Russell set traps on right (east) side of canyon wall. Traps were set under rocks for Neotoma and in more level spots for Peromyscus and Perognathus. The upper part of the ^{canyon} ~~creek bed~~ was spotted with small meadows, in which grew flags (Iris) Delphinium, Penstemon and occasionally Mimulus and usually in these small meadows we found gopher mounds. All told we set out four gopher traps.

After following the water course for $1\frac{1}{4}$ miles

Lilleland 1933

Itinerary.

Continued) June 30. we went up the ridge in the direction of Jefferson. Came to an old mine shaft and in this we found the nests of two wood rats. Traps were set, one just inside the opening the other at the extreme end. Returned to camp.

July 1.

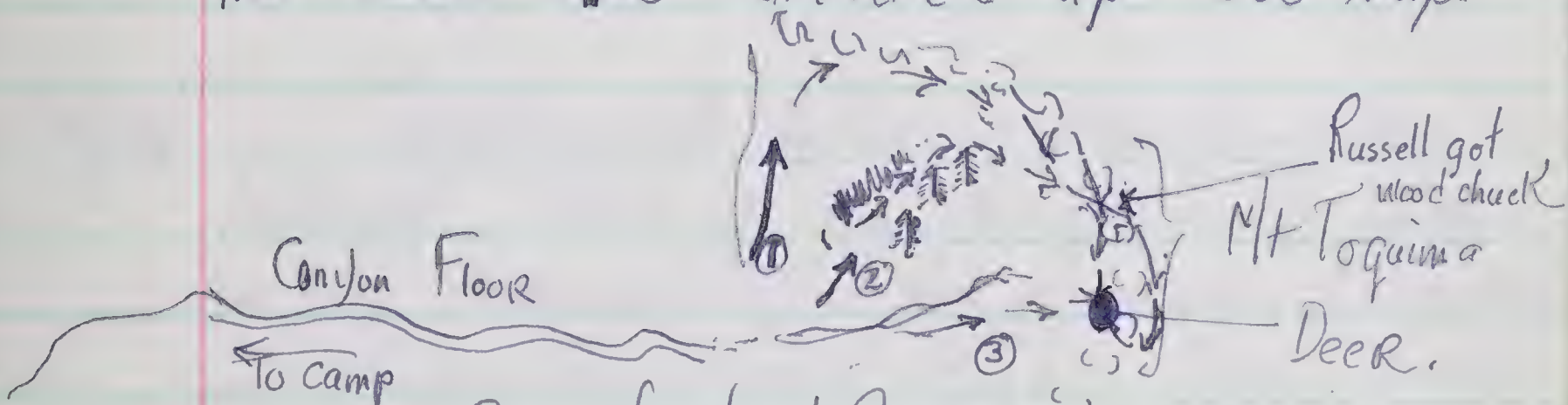
Checked trapline set July 30. Ward Russell again took Paul Wilson and self over course. Noted cotton markers and accounted for traps. Took only one Neosorex. Additional specimens included several each of Microtus mordax (near water) Peromyscus crinitus and Peromyscus maniculatus (in rocks) and Perognathus parvus on a flat. Also took a Neotoma up in the rocks. Gopher traps were unsprung. Two gopher traps were set in recent diggings. Traps set for Neotoma in mine shaft were cleaned of oatmeal but unsprung.

Spent the afternoon in hunting up the Canyon with Francis Gale and later with Frank Gorham. Looked for conies but saw none. Shot a green tailed Towhee and two Eutamias. Returned to camp at 4³⁰ p.m.

July 2.

Itinerary

Left camp about 6 am. with Ward Russell and Jack Arnold to get a deer which Ward had left on slope of Mt Toquima on previous day. We worked up the ~~the~~ Right fork in a direction which would to me be west and south of camp. We climbed a rock slide to see if we could find conies. but no luck. We continued up canyon until we sighted Ward's white shirt which marked the deer. We divided up. See map.



- 1- Route of Ward Russell
- 2- " " Ole Littleland
- 3- " " Jack Arnold

Got 2 audubon warblers - one on valley floor the other on top of Toquima - 1 Chickadee 1 junco and one rock wren. Took a shot at a grouse but missed it. Ward also shot at one on the way down - but did not connect. We skinned the deer, cut her up - and divided the load. The catch of the day was Russell's wood chuck.

Itinerary.

Lilleland 1933.

July 3. Spent the morning in putting up a Nucifraga columbiana collected by W. Russell, a Turdus migratorius (Robin) shot in camp by Russell and the 3 birds secured July 2, up on the side of Mt. Toquima. These were Junco annectens ♂, Dendroica auduboni and Parus gambeli. Worth noting perhaps that one Dendroica was taken at 8000 ft., and the other at 9,500 considerably above the point where W. Russell shot his deer.

July 4. Slept a bit later celebrating the holiday. Put up two Eutamias m. pictus in the morning. In the afternoon I walked up along Grass Creek Road. Saw several humming birds. Two in hot pursuit. diving from tree tops with bullet like speed. Saw a hawk up on top of a pinion high up on a cliff. Its note was a two toned plaintive cry - could not make out colors well but when it flew. lower sides of wings were whitish.

Lilleland 1933.

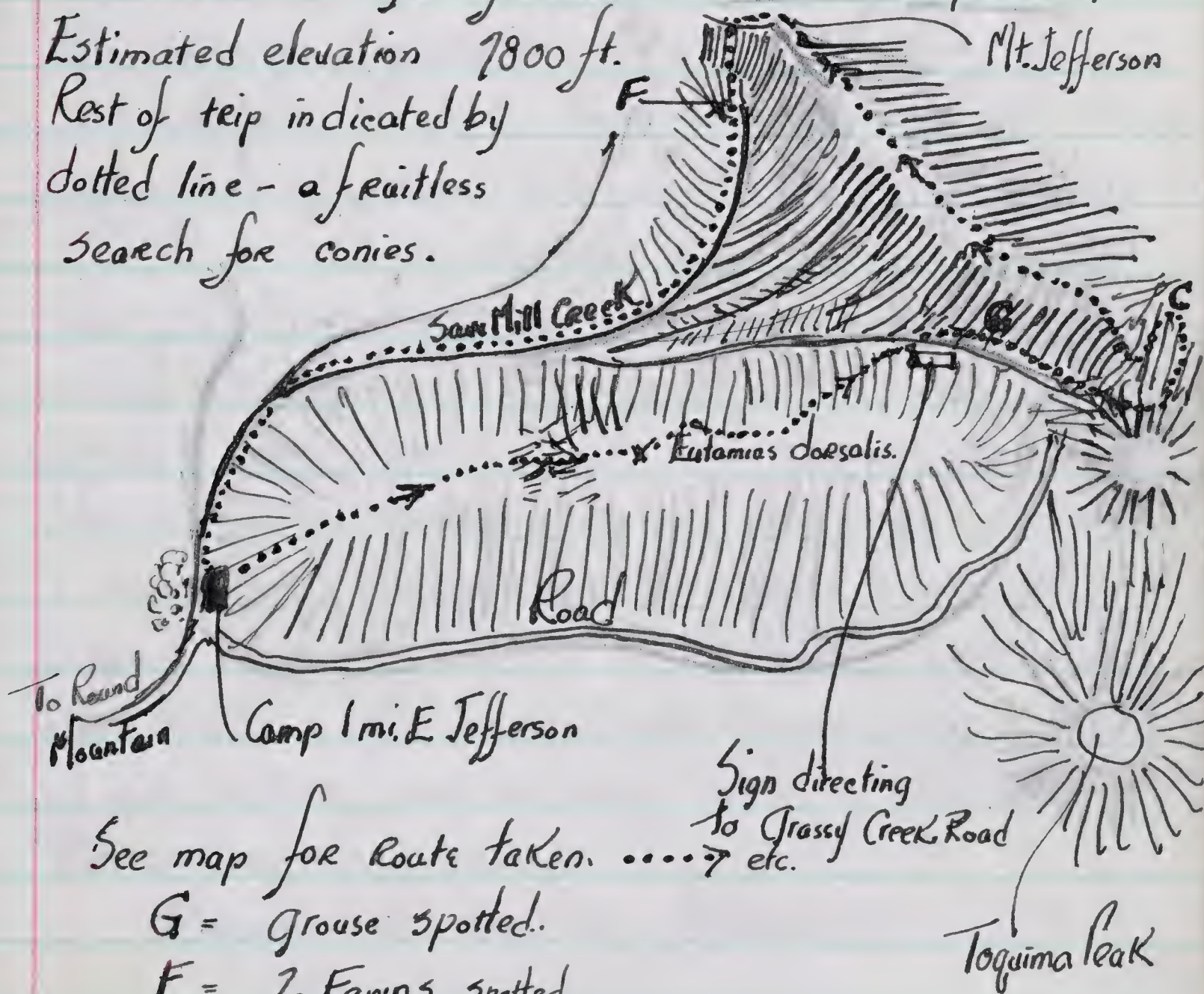
Itinerary.

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July 5.

On this date I left camp 1 mi E of Jefferson about 6³⁰ am. heading in a direction approximately E x S. Directly over the hill beyond camp. Crossed a canyon. Over the next ridge about 1³/₄ mi from camp I shot a Eutamias dorsalis ♀ and a young Callospermophilus ♂, and about 300 feet further a Eutamias pictus ♀. Estimated elevation 7800 ft.

Rest of trip indicated by dotted line - a fruitless search for conies.



See map for Route taken. etc.

G = Grouse spotted.

F = 2 Fawns spotted.

C = E boundary of Nestdale claim.

Returned to camp about 5³⁰ p.m.

July 6.

Left camp 1 mi E Jefferson 9 a.m. Some delay in getting Dodge Truck started. We arrived at Tonopah via San Antonio at 11³⁰ a.m. Got our mail and had lunch at Tonopah Club. Purchased various

Lilleland 1933

Itinerary.

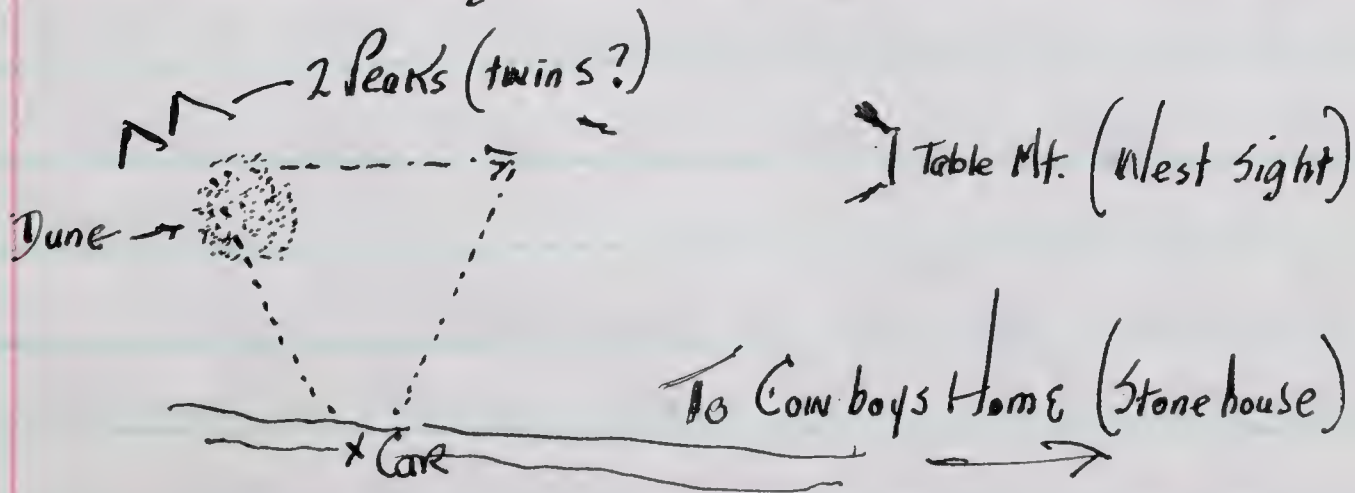
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July 6.

necessities and left Tonopah at 2⁰⁰ p.m. We drove to a spot in the Monitor Valley 10½ mi E of Toquima Peak - Elevation 7000 ft. We camped ⁱⁿ or invaded a large stone house - whose wall inscriptions outdid those of Belshazzar's famous banquet hallucinations. This house was about 6 mi from the town of Belmont.

About 5³⁰ p.m. Doctor Hall, Jack Arnold, Francis Gale and self drove to a point E of the stone house 1½ mi on a road running E and W. From that point we headed in a more southerly direction across the sage about a mile. Here we found several sand dunes. Jack and Francis stayed in the vicinity of the dunes to set out traps. Doc and I drove back to the road to a point where the Compass read 76° N of N. to Mt Jefferson (peak), in other words Jefferson was ~~NW~~ approximately W x N of our position, and we were about 10½ mi to the east of the peak.

Diagram of trap set follows:—



Lilleland 1933

Itinerary.

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July 7. The catch was entirely made up of Microdipodops. Nine were males, seven females. Microdipodops megacephalus as the species name indicates has an unusually large head, most pronounced being the auditory bullae. Another interesting characteristic is the tail enlarged for support in the center.

Late in the afternoon I went with Steve Durrant and Paul T. Wilson into the foothill Region back of the Stone-house. We drove to a point about a mile back of the house. A small creek runs down into the Monitor Valley from this point running just 50 feet from the house in the valley. I set out most of my fifty eight traps around the hillside to the N of the stream. In order to test differences due to presence of succulent grasses I set about 10 traps along the stream.

July 8. Results of previous days trapset were:—
16 Peromyscus maniculatus, 2 Peromyscus crinitus,
2 Perognathus parvus, 1 Microtus mordax (by stream),
and I shot 1 Sylvilagus idahoensis. The Peromyscus crinitus were taken at the end of a small V shaped wash.

Left Stone house at 2⁵⁰ pm. Drove to Belmont. Started for Tybo - but confusion in maps and signs ~~here~~ resulted in Reconsideration and we ended up at Tonopah at 5³⁰. We had dinner at Tonopah Club and departed from

Littleland 1933

Itinerary.

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Tonopah about 6⁴⁵ We headed for some sand dunes NE of Tonopah. Drove about 16 miles NE of Tonopah - a short distance off the road and camped. Set out 30 traps using flashlight. Line paralleled highway to E.

July 9. Took 5 Microdipodops megacephalus and 2 Perognathus nevadensis.

Checked speedometer to find that our campsite was 4 mi. from the pumping station (NE) Left Ralston Valley site about 7³⁰ am. - Arrived at Clarke's Station at 8³⁰ am. Counseled with Keeper regarding roads - and headed N toward Hot Creek mts. Paul Wilson ill on trip - Overnight camp selected E of Tybo in Hot Creek mts. Set out trapline S of creek.

July 10 Trapline started above sheepherders cabin about a mile above campsite. From this point line went S of creek directly to the top of the divide in an E x S direction. Traps yielded one crinitus and one Eutamias quadricinctus. I shot two Eutamias dorsalis near the cabin and a Eutamias quadricinctus at the top of the divide. Also shot a towhee near cabin. Turned towhee over to Jack Arnold.

July 11 Altogether I had out 25 Rat traps and 30 mouse traps. Obviously, Rodents were not

Lilleland 1933

Itinerary,

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July 11 - very plentiful in this canyon. E.R. Hall, S.D. Durrant and F.W. Gorham all of whom trapped in the valley W of our camp (about 3 mi) took 173 specimens out of about 300 traps set. These were mostly Microdipodops megacephalus, Perognathus nevadensis and Peromyscus maniculatus.

On this same date I trapped one Neotoma lepida - female with young, as indicated by enlarged mammaries, also two Peromyscus maniculatus. The Neotoma lepida had a bot fly larva hanging partly out of the skin ventrally in the neck region. This I preserved. Shot a Eutamias dorsalis as early as 5³⁰ a.m. before sun had reached the N. side of canyon wall.

Left Camp Hot Creek (Camp 3) at 2¹⁰ pm. We first drove to the Willow Creek Road; then realizing that barometer had not been checked we returned to camp. Trucks went on. Found altimeter 200 ft. off due to change in pressure. Travelled by way of Fish Lake (conspicuous alkali deposits) to Greenmonster Canyon. About 4¹⁵ we came to the Ranch home of an Indian in canyon. This was the most attractive spot we had come to or seen.

Lilleland 1933

Itinerary.

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July 11. The Indian told us that we could drive about $\frac{1}{2}$ mi further up the canyon. We arrived at camp site 4, Monitor Range, Greenmonster Canyon, at 4³⁰ p.m. and started immediately to clear the ground of sage brush for the erection of the tents. Set out traps - 35.

Neglected to mention that about three miles above Fish Lake E.R. Hall shot one sage hen.

July 12

Went over the trap line over the hill to the north of Greenmonster Canyon Camp. I had expected to catch a number of chipmunks and perhaps some Neotoma in the rocky outcroppings. Instead I caught five Peromyscus maniculatus three adult males and two females. These were taken along the top of the hillside in rather loose gravelly sand and rock. Traps were set in rather close to junipers and pinions.

Put up specimens in the afternoon, and toward evening I went up the canyon about a mile and a half and set out sixty traps. Set out forty along water course and twenty up a small canyon.

July 13.

Traps yielded seven Peromyscus maniculatus 4 taken in stream bed, 3 on bank, one Microtus mordax in stream bed and one

Lilleland 1933

Itinerary

20

(Cont'd) July 13. Eutamias m. pictus caught half in water and half out. The canyon traps caught nothing. All traps were rebaited and Reset. On the way down from the trapset I shot a Tolmiei warbler in a willow in the cow pasture (large flat) and about 200 feet above camp a blue jay Aphelocoma woodhouseii. In the afternoon, put up one Eutamias m. pictus, one Peromyscus maniculatus and one Microtus mordax; also two birds.

July 14. Left camp with Jack Arnold at 7¹⁵ a.m. with lunch, canteen and hunting outfit. Wandered leisurely up the canyon hunting birds. Came to an aspen grove. Saw a large nest about 15 feet above ground in an aspen crotch. Climbed up to see but found nest abandoned and covered up. At 11¹⁵ I shot a chipmunk in a mahogany grove (Eutamias quadrivittatus). Had lunch at 11³⁰. Started to Rain at 12⁰⁰.

Jack Arnold continued in aspen grove, I climbed saddle to right and came over the divide. Looked down on a canyon N and E of Greenmonster; saw a large aspen grove down in valley. At 12⁴⁰ heading toward water coursing down mountainside I ran onto three Sage hen Resting in a patch

Lilleland 1933

Itinerary -

21

Cont'd July 14. of nettles. Shot one, a hen. Time 12⁴⁰
Followed stream as far as possible. Saw
several deer tracks near stream. Arrived at
top of divide at 1⁴⁵. Saw a Callospermoph-
ilus near a pinion. Walked over to basin
on top of the mountain - Saw the most
beautiful sight of entire trip to date.
A succession of small meadows, a small
stream flowing through middle and a
Rocky Rim Running Roughly NW and SE
supporting the last vestige of winter, a
bank of snow. Saw a large sage hen
feeding alone below snow. Climbed west
Rim of basin and could distinguish Mt.
Jefferson, Mt Toquima, Table Mountain and
what I thought was Camp #2 the house
in the valley above Belmont. Shot a
Junco and an audubon warbler. Right
in the basin. The warbler was in a
quaking aspen and the Junco was down
under a large rock taking a drink. The
time was then 3³⁰. Came upon a deer
in an aspen grove on E slope. Stopped to
take some pictures. Intermittent showers
fell from time to time. Started down
at 4 pm. Wandered down into canyon
where I had shot sage hen. In aforemen-
tioned dense aspen grove I lay down

Silleland 1933.

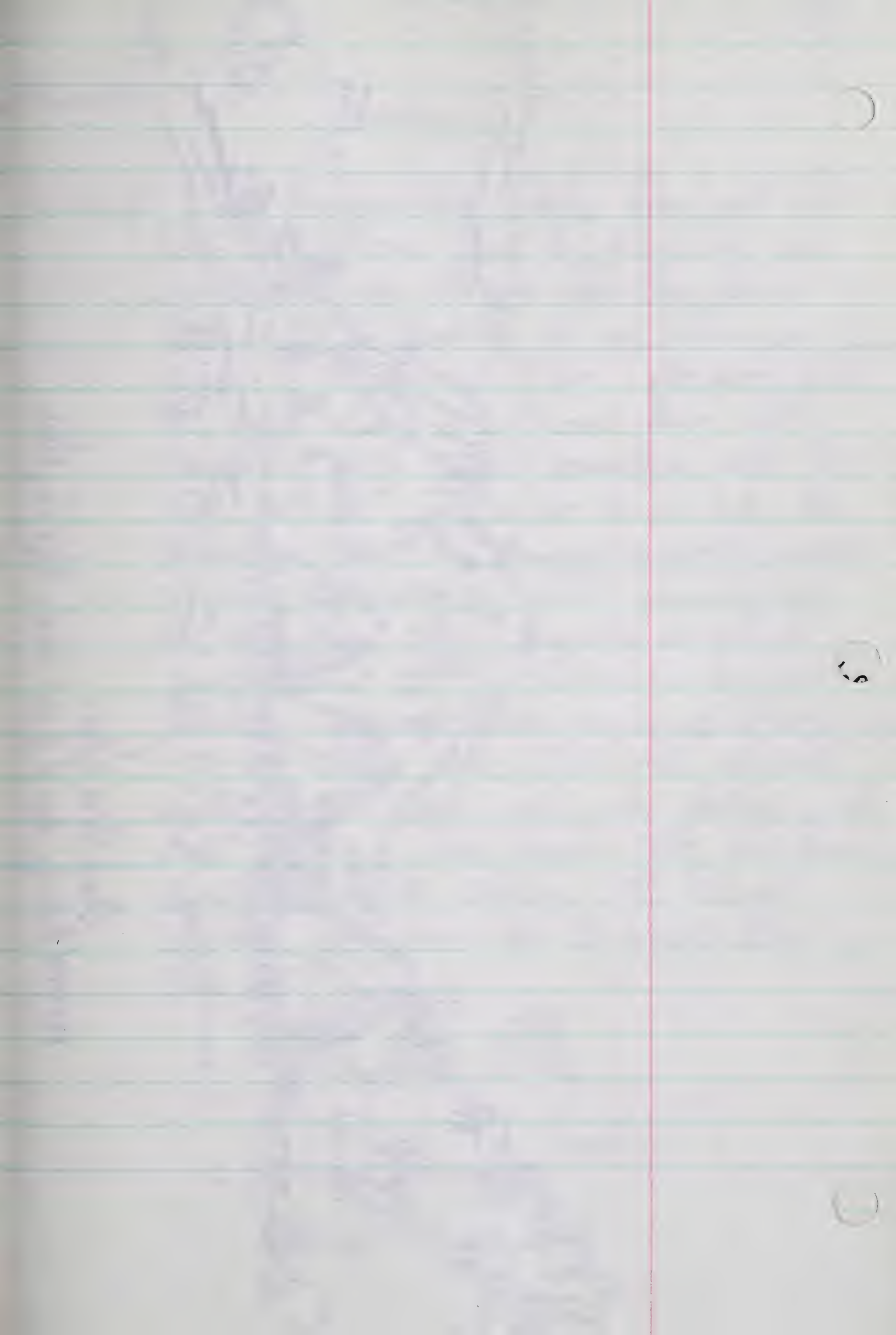
Itinerary.

22

Cont'd. July 14. and watched two deer a doe and a two pointer come down a small side canyon to within 80 feet of where I crouched. The buck was very much more cautious than the doe. Made my way back over hill to Greenmonster Canyon. Saw two magpies. Made camp at 6³⁰ pm.

July 15. Went with Ward Russell and Jack Arnold to hunt piqua. Russell took two, Jack one, self none. Spent part of morning making up birds and a *Callospermophilus*. In the afternoon I made up the Sage hen.

July 16. Worked on notes. At 8³⁰ went bird hunting. Took 2 bluebirds, one Clark nutcracker and a warbling vireo. The bluebirds were a ♂ and ♀ *Sialia mexicana occidentalis*. Both were taken at the same spot on a hill about 1/4 of a mile above Wagon John's place. Took the Clark Nutcracker at the same spot. Took the Warbling Vireo near the Road in a willow clump about 400 feet E of Wagon Johns. Came to a Rock on the top of the hill with an arch through it. C爬led through the arch and found two *Neotoma* nests. Both were slightly covered with juniper cuttings.





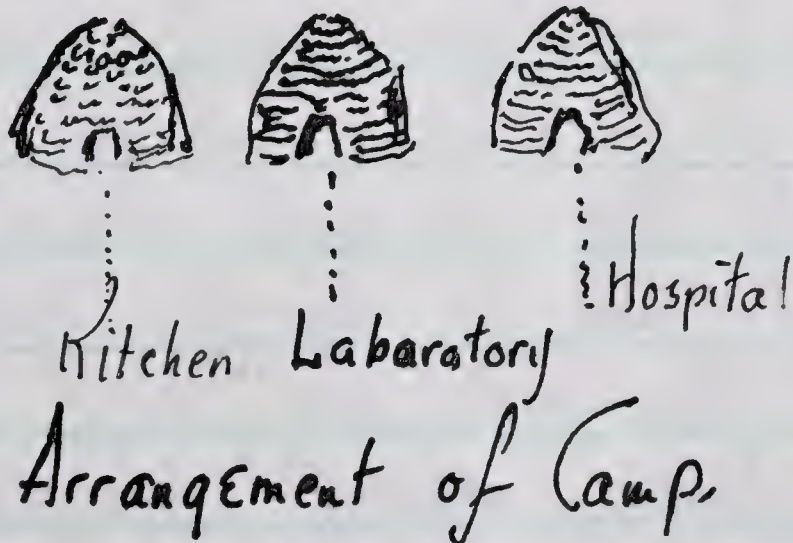
Valley - just in the

Camp Three Kilns -
Hot Creek Valley, 4 mi. N. of Hot Creek, Nye Co., Nev.

Littleland 1933.

Itinerary.

July 17 Left Greenmonster Canyon Camp with W.B. Davis at 9¹⁵ a.m. Went by Fish Lake and Hot Creek Canyon through Page Bros. Ranch. Stopped at a dwelling to get advice on roads. This was at 11 a.m. We were told to take Road to N and turn left toward a very rugged mountain and 'Six mile Canyon'. Just as we turned into this Canyon we saw an Ammospermophilus, white streaked tail over his back, running up the mountain side. Arrived at end of road about 11⁵⁰. Consensus of opinion favored turning down canyon and selecting a better camp site. Dr. Hall stayed with Francis Gale who was resting under tree suffering from fever. The two trucks turned down the canyon. W. Russell elected to camp in 3 brick kilns.
Time 12¹⁵



Lilleland 1933

July 17

Itinerary,

Five o'clock went with E.R. Hall and John R. Arnold to set traps in valley below Six Mile Canyon. Drove to a spot $6\frac{1}{2}$ mi N of Hot Creek and set out about 30-35 traps each. Land sloped gently to E - vegetation sparse and low growing. Little indication of animal life. Drove two and a half miles toward Hot Creek and set more traps. I set only twenty two as darkness overcame us.

July 18

In the group of traps set $6\frac{1}{2}$ mi from Hot Creek I found one Dipodomys and nine Perognathus nevadensis. Rain had fallen during the night - Many of the traps were sprung by Rain. One trap had been dragged 10 feet and the prey had escaped. At the set four miles from Hot Creek I found four Perognathus nevadensis.

After collecting the specimens in respective trapsets E.R. Hall, John R. Arnold and self drove N x E ^{from} Hot Cr. about 10 mi. We looked over a streambed to the right of the road. Found it dry and ruled it out for prospective trapping. We started S toward Hot Creek. Decided to hunt horned toads and lizards. E.R. Hall drove Jack Arnold and self alternated between position on right running board and Rumble. One on outside would spot toads and go after them. Man in

Lilleland 1933.

Itinerary

July 18 Rumble would assist in spotting or tracing them and in addition see that they were properly sacked. Needless to say, driver also spotted many. We collected in less than an hour 24 specimens of Phrynosoma platyrhinus and 2 leopard lizards. After this we drove to the ^{Williams} ~~Allen~~ Ranch in Hot Creek where we inquired about getting a hose connection for Dr Hall's car. We were directed to the Indian Camp a short ways up the hill where Dr Hall outguessed the Shoshone and came away with the cooling system of the Ford repaired.

Correction
&
Williams

Spent the afternoon putting up specimens. At 4³⁰ went with S. D. Durreant, and Jack Arnold to Hot Creek where we set traps in the meadow along the creek flowing into the ~~Allen~~ Ranch. Saw no signs of Microtus mordax which we were eager to take. but did find several gopher mounds. Lacked the mattock to dig with so we merely set mouse traps along creek. Jack Arnold and self set a few on opposite side of Road i.e. S of Road coming from Fish Lake Valley — We then drove $\frac{4}{5}$ mi S of Hot Creek and set out traps on both sides of the Road going to Tonopah. Started Raining at 5¹⁵ 50

Lilleland 1933,

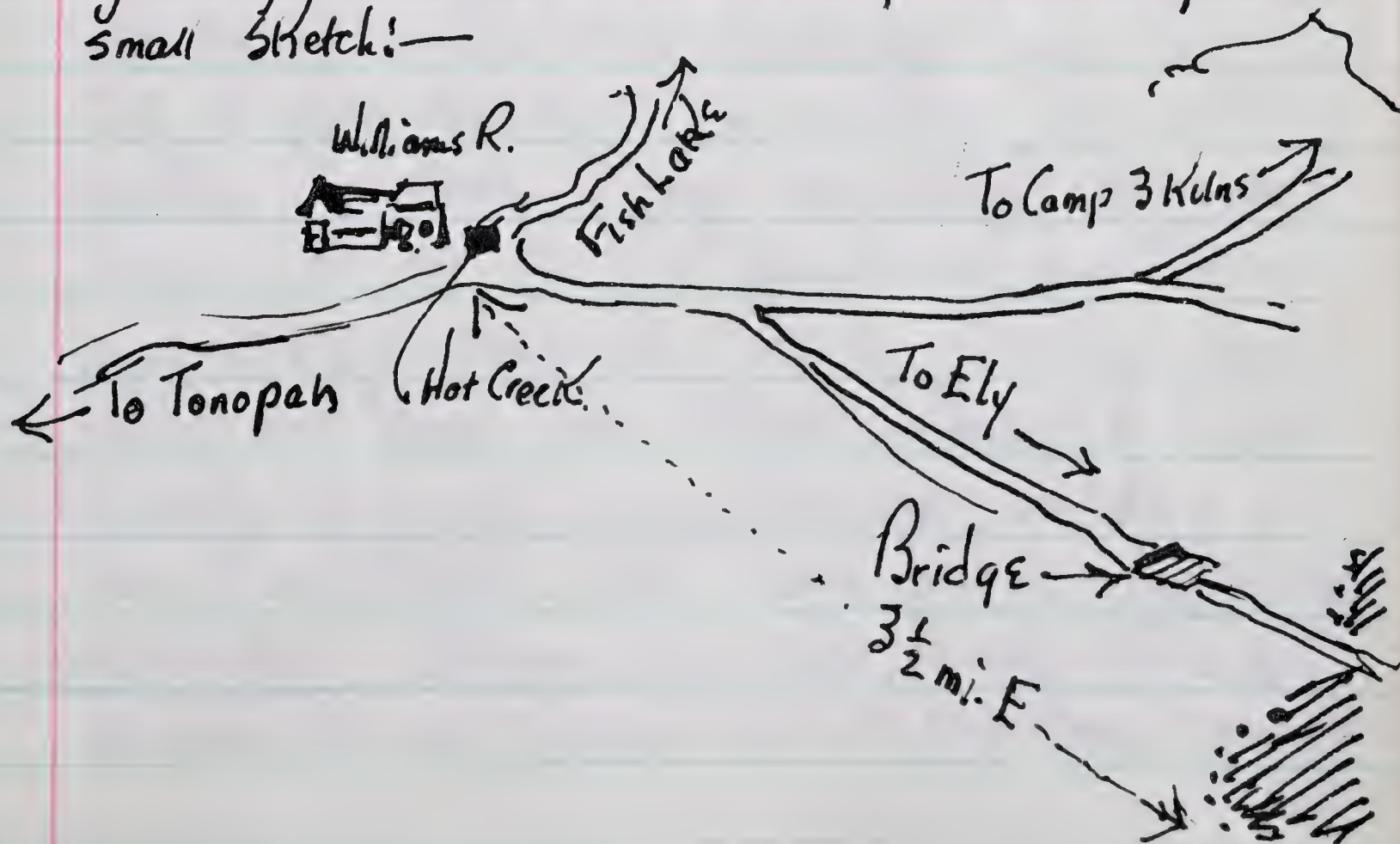
Itinerary -

27

July 18 we had to abandon further trapsetting. I only got out twelve at this point. Strong wind blowing from W.

July 19. Up at 5. Breakfast and by 5³⁰ off to see what our traps had caught. Went to site on Tonopah Road first. Out of twelve traps I caught only one Dipodomys ordii columbianus ♀. J. Arnold took none, S. D. Durrant 3 specimens. Drove to site $\frac{1}{4}$ mi W Hot Creek and there took 3 Dipodomys m levipes, 2 ♂ and 1 ♀; also one Perognathus nevadensis. No Microtus were found. Stayed long enough to set 5 gopher traps and returned to Camp Three Kilns about 8³⁰. Set out more traps with S. D. Durrant and J. Arnold.

July 20 The site of our trapsets of the evening of July 19 can best be represented by a small sketch:—



Lilleland 1933

Itinerary

July 20

The ground sloped gently to E. Occasional Ridges and washes broke the otherwise uniform topography. Vegetation sparse and low growing. Bush that is most widely distributed has terminal spicules much like some cacti — the bush itself in shape is like sagebrush. Understand that bush is an *Atriplex* (?). Soil varied considerably. Some places it would be very sandy and fine — other places gravelly and in still others clayey and alkaline.

Caught 8 *Perognathus nevadensis*, 6 *Microdipodops*, 4 *Dipodomys m. levipes* and 1 *Onychomys leucogaster brevicaudus*. Total number of traps set was 64. Caught the *Microdipodops* in the sandier lighter soil. The *Dipodomys* were scattered as were also the *Perognathus nevadensis*. The single *Onychomys* was caught 25 ft. from the road in a clayey flat. When setting the traps I had run out of cotton and rushing to set the full complement and yet not jeopardize my chance of finding the trap, I had set it out away from bushes. Caught a leopard lizard *Crotaphytus* in, which was watching a live *P. nevadensis*. Also came upon a *Dipodomys m. levipes* sitting by a trap, rolled like a ball. Grabbed it and found that it had been caught

Lilleland 1933.

Itinerary

in that trap - by the skull; but had pulled out.

Set traps with Frank Gorham, down below "Camp Three Kiln" along both sides of creek. Put out seventy five traps.

July 21. Traps set evening before caught Peromyscus maniculatus, Peromyscus crinitus and one Neotoma

lepida. Traps set in creek bed for Neosorex trapped almost entirely P. maniculatus. Neotoma lepida

was taken up in the Rocks above (ie N of) the Road.

Tail of Neotoma lepida taken was quite bushy and for a time we thought we had taken another species. Along the south side of the creek on low rocky flats where one would suspect Eutamias dorsalis nothing was taken. ~~Russell~~

Ward Vard Russell shot two higher up the Creek. Spent the morning putting up specimens.

About three in the afternoon, we left "Camp Three Kilns" for parts unknown. Drove to Warm Springs where we inquired about prospecting Camp sites to the east. We found out that there was water at Old Mill in Reveille Valley. Arrived at Old Mill about 6¹⁵ pm. Set out 165 traps at the point where the intersection of 'Warm Springs - Old Mill Road' and Eden to Old Mill Road. Saw a Phalarope feeding in a shallow pool near the Old Mill. Ward Russell shot it. I was standing no more than

29th 1st

Will Elan d 1933

July 21 -

Itinerary.

thirty feet from him while he was feeding. The bird seemed to have no fear. Even after Ward shot and missed the bird settled down in the water and went right on feeding.

July 22.

Started out at 4³⁰ am to collect our traps. Part of area trapped near Road had sandy soil and here I found several Microdipodops. Further south I came to a spot where the Artemisia was dwarfed - and sparse and where cow tracks were numerous. Here I took two Dipodomys m. leucipes. Came to one marker, and found trap gone. Finally found it seven feet from marker - containing a Peromyscus maniculatus young with half the skull chewed off.

Total catch included 6 Microdipodops (5 ♀ and 1 ♂), 3 Dipodomys m. leucipes (1 ♂, 2 ♀), 1 Onychomys ♀, 1 Perognathus nevadensis, 2 Peromyscus maniculatus, Peromyscus ~~famosus~~, and 4 Perognathus parvus.

Left Camp Old Mill at 8⁰⁵ am. after weighing and gutting specimens - Set out for New Reuille. Couldn't find New Reuille so we set out for Nyala. Were advised to go to Big Creek.

Lilleland 1933.

Itinerary

July 22 (cont)

Did not set out any traps as I had enough left over from Old Mill to keep me busy. Made up specimens in afternoon

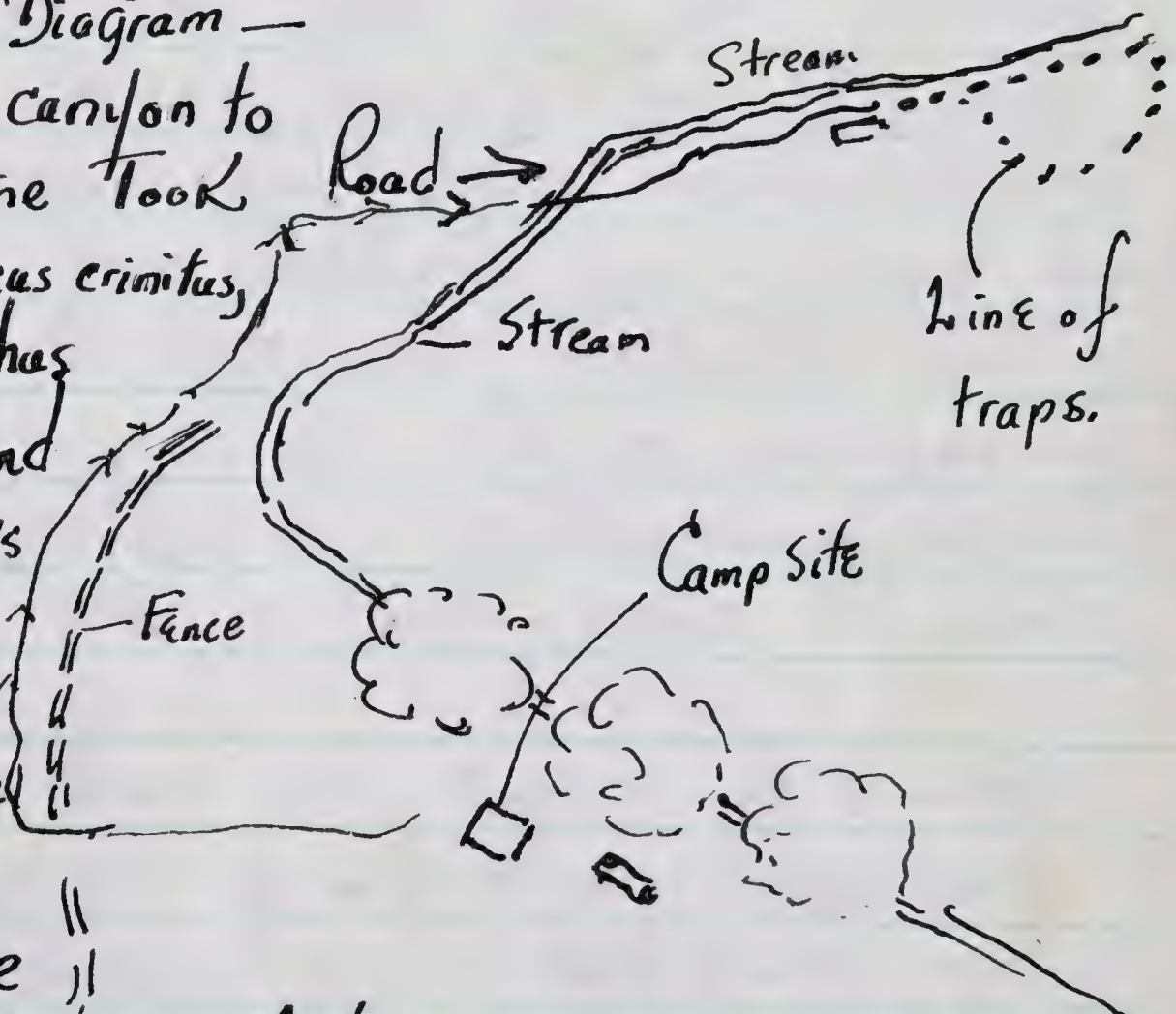
July 23.

Continued making up specimens from Old Mill. Afternoon about 5 went with J.R. Arnold up into Big Creek Canyon east of our Camp site. Drove about $\frac{6}{10}$ of a mile up Canyon Road. Jack took E side of canyon and I set traps on S and W side. Followed stream bed, for biggest part of way.

Diagram —

July 24

Went up canyon to check trapline Took
4 *Peromyscus crinitus*,
3 *Perognathus*
formosus and
1 *Dipodomys*
ordii colap-
bionus, the
latter caught
in a flat
quite close
to the stream



Made up specimens until about 3³⁰ pm when E.R. Hall, J.R. Arnold and self drove to a point $9\frac{1}{2}$ mi. E. New Reveille in Railroad Valley. Discovered after arrival that sack of traps had been left at camp. I had 35 in my

بسم الله الرحمن الرحيم
الحمد لله الذي هدانا لهذا
ما كنا لنهتدي لولا أن هدانا الله
والحمد لله رب العالمين
والصلاة والسلام على
سيدنا محمد
الذي ولد في مكة
في شهر ربيع الثاني
في يوم الاثنين
في سنة الف
والصلاة والسلام على
آله وصحبه
والمؤمنين
أجمعين
والله اعلم
بما نزلنا
والمؤمنين
أجمعين

Weland
Cont July 24

32
hunting coat and with a half dozen Rat traps
we made the best of our limited supply.
Got up at 10pm. Went over traps and reset those
that were Itineary. sprang.

July 25

Caught 2 *Perognathus nevadensis*, 1 *Dipodomys*
m. leucipes, 1 *Onychomys*, 1 *Peromyscus maniculatus*,
and 4 *Microdipodops*. These were caught
on a sand dune on the edge of the
large alkali lake by which we camped.
This lake is about 3 mi across. Color
as white as diatomaceous earth. We
caught a live *Microdipodops* also.

Vegetation mostly *Atriplex*, rather
low growing; some *Chrysothamnus* also.
Arrived at Big Creek about 9³⁰ in time
to see trucks leaving for Burned
Corral Canyon. Just before sighting trucks
we saw two antelope loping down toward
west in the sage brush. The white tails
were very apparent. As for distinguishing
other characteristics - distance was prohibitive.
We also saw a Raven about the same
time.

We drove via Nujala to Burned
Corral Canyon where we established
camp. Canyon itself is well covered with
junipers, pinion, *Rhus trilobata* and willows.
Stream runs a short distance from camp.
Mint grows in quantity along streambed.
Rather high peaks rise N and E of
camp site.

[The page contains extremely faint, illegible handwriting, likely bleed-through from the reverse side. The text is arranged in approximately 20 horizontal lines. There are two small, dark ink marks or smudges located near the top center of the page.]

Was advised that I was to go with
Nard Russell to ~~Teapah~~ on following day
so I set no traps - 235

Left camp at 7³⁵ with M. Russell.
Reo loaded with specimens - empty gas con-
tainers etc. Stopped at Garretts at
Nyala where we took on two Standard
Oil drums for refilling.

When we came to the pass which connects Railroad Valley and the lower end of Hot Creek Valley we saw a nesting falcon, up on a high cliff. Bird flew off nest when we stopped and though we waited, did not return. Estimate nest at 75 feet above floor of pass and about 15 feet from the top. It would not have been at all impossible with care to have reached nest from the top.

For the first time since I left Southern Calif (Pasadena) I was sure of seeing mocking birds. Did see one in a cage at Warm Springs but these were wild. Here Atriplex grows to a height of 3- 3½ feet - really luxuriant in growth and patches of meadow grass spot the landscape.

Journal

1875

Jan 1st. A fine day, with a light breeze from the west. The thermometer stood at 32° at 10 AM. The sun shone brightly, and the clouds were few and light. The water was calm, and the ice was thin and broken. The birds were out early, and the fish were plentiful. The day was very pleasant, and the weather was just what we needed. We went out for a walk in the morning, and saw many beautiful sights. The snow was deep, and the trees were covered in white. The children were very happy, and they played for hours. We also went to the school, and saw the children at their lessons. The teacher was very kind, and she showed us many interesting things. We stayed at the hotel, and the food was very good. The room was comfortable, and the bed was soft. We were very happy to be there, and we enjoyed every minute of our stay. The day was a very good one, and we were all very satisfied with it. We went to bed at 10 PM, and we were all very tired. The night was very quiet, and the moon was shining brightly. We had a very good night's sleep, and we were all very refreshed in the morning. The day was a very successful one, and we were all very happy with it. We went to bed at 10 PM, and we were all very tired. The night was very quiet, and the moon was shining brightly. We had a very good night's sleep, and we were all very refreshed in the morning. The day was a very successful one, and we were all very happy with it.

Hilleland 1933

Itinerary -

34

July 26

We arrived in Tonopah at 12¹⁰.
Called for mail, packed specimens,
ordered groceries - meat, made enquiry
at hospital for Francis Gale and
after completing other purchases were
ready to leave at 6¹⁵ pm.

Drove to a spot 2½ mi E x N
of Twin Spring (Johnnie Wilsons home) where
we camped for the night. We had noticed
some sand dunes out in the arroyo
while travelling west earlier in the day
and had selected the spot for trapping.
However as it was 8 pm or later when
we arrived near the site we could
not distinguish accurately the locality
of said dunes. The site which we
finally decided upon was covered
with a black rock - soil dark and
hard - vegetation straggly - *Atriplex*
and *Chrysothamnus alternatus*. Out of
60 traps set I took: -

July 27

5 *Dipsosaurus m. levipes*, 2 *Perognathus*
formosus 6 *Perognathus nevadensis*.

Ants had eaten on two of specimens,
one *nevadensis*: discarded because of
bad condition.

Lill Eland 1933

Itinerary

cont July 27.

Our overnight camp was $2\frac{1}{2}$ mi E of Twin Spring. Left camp at 6³⁰ am. Drove to Twin Spring. Crossed a small creek. Saw at least six Jack Rabbits grazing around a corral in meadow grass. W. Russell shot an *Ammospermophilus* near barn of place belonging to Johnnie Wilson. In the middle of what might be termed the yard or foreground of Wilson's place was a pool formed apparently, by a spring. The pool was well populated by small trout. Elevation here was 6250 ft by aneroid (altimeter).

Drove on to Nyala where we unloaded gasoline drums and thence to camp. Before reaching Nyala we drove to site of our recent camp at Big Creek to recover some rope, a pick and minor items that had been overlooked. While looking around for these W. Russell spotted a large Rattlesnake. He was crawling over some old garbage. W. Russell went back to car to get his gun. I struck once with a stick and stunned him and held him until the battery arrived. He was over 39 inches long - five rattles and a button. Recall that while we were at

Littleland 1933.

Itinerary.

Cont. July 27. Big Creek, Frank Gorham made up specimens in an old shed, set back in the corral E of the ditch - He was putting up mice and left four of them on a board while he went to supper. When he returned all four had been swallowed and regurgitated - in fact were slimy wet when found. Now, to make a long story short, the Rattle snake that we took, was very insistent on going in the direction of said shed, even challenging the stick to get by. - This may be too obvious to be true, - but the guess is worth venturing that we may have taken the snake that was after the mice. One might make a number of inferences on the intelligence of a Rattler, or more flattering ones on the ability of the taxidermist! This was the second Rattler, taken in this particular place and also the second for the trip.

Arrived at Camp Burned Corral about 11 am. Spent the afternoon in putting up specimens. That evening I set out 45 traps N and South of Camp as indicated in diagram which follows.

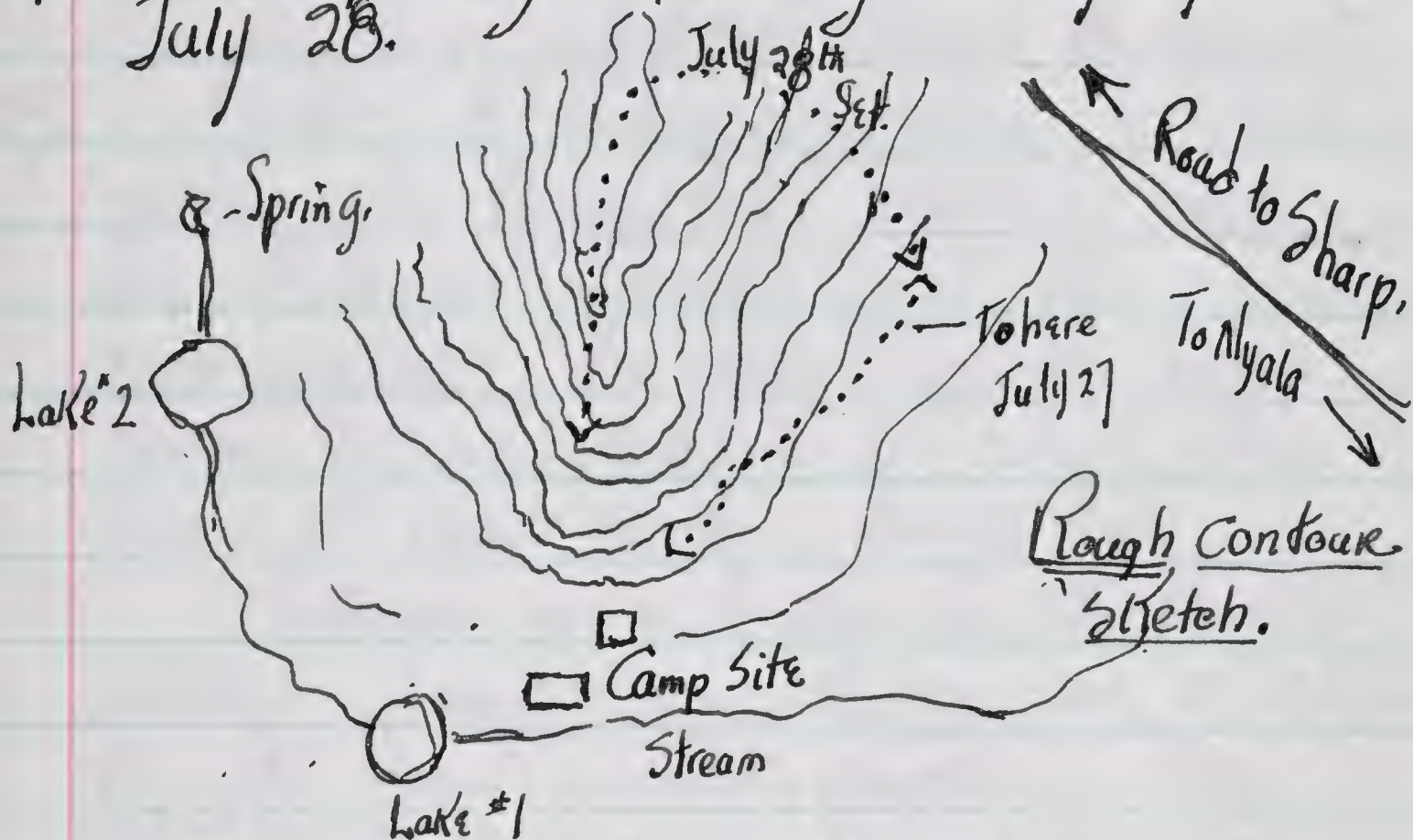
Williland 1933.

Itinerary,

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Cont'd July 27.

Diagram of trap sets for July 27 and July 28.



July 28 Took 16 Peromyscus maniculatus in morning. Rain has sprung many of traps so I Reset many of them. In afternoon I found one Eutamias m. pictus and four more Peromyscus maniculatus. In late Afternoon I set out 55 traps up over the side of the wash or mountain side as indicated in map. Came Right over the Ridge and down to camp. Estimate elevation on top of Ridge at 7000 ft. Camp site is 6700 ft. Ephedra, junipers pinion and Mountain mahogany grow clear to the top of this Ridge. Rock ledges Characterize the Ridge. Saw signs of

Lilleland 1933

Itinerary,

Cont'd July 28 Neotoma lepida, faeces in rock crevices, juniper twigs scattered about burrow etc.

July 29. Took 5 Peromyscus truei, 2 Neotoma lepida, one Peromyscus crinitus, one live Eutamias dorsalis and 10 Peromyscus maniculatus. The adults of the latter seem to me redder in color than those I have taken here to fore.

Neotoma was taken in the Rocks (adult) young, was taken on W slope 70 ft. from nearest Rock. The Peromyscus truei without exception were taken on the top of the ridge. The single Eutamias dorsalis was taken under a large juniper tree on west slope. Caught by back — it (?) was jumping around when I came up to it. Released it and put it into a sock, hoping to keep it alive. Peromyscus crinitus was taken near the top on W side.

July 30 Made up specimens in afternoon. Set traps for bushy tail Neotoma with Jack Draple on previous evening — rain had set off some traps. A few had been cleaned of bait and not sprung. Took only one Peromyscus maniculatus.

Willeland
1933

Itinerary -

Contd July 30

After collecting the traps, I hunted up the canyon. Shot a 'woodhouse jay', a tanager, Piranga ludoviciana and at the head of the canyon a Eutamias quadri-
vittatus. The latter was on a vertical rock wall a short distance from a small spring. The vegetation in this canyon was quite different from that in Buena Vista Canyon proper. Conspicuous were a small leafed maple, firs and limber pines. Birds were plentiful. Chickadees, Rock sparrows, crossbills (black headed) Clark's Crows in addition to those previously mentioned occurred in numbers.

Was disappointed in not getting the Bushy Tailed Rat especially since signs and burrows or nesting materials pointed so directly to his presence. Frequent caves made this locality especially desirable for the life of the Bushy Tail.

July 31

Hunted up the valley E of the road to Sharps. Shot a young towhee, a chickadee and what I took to be a Vermifera lutescens. Saw a large doe, just above a rock slide E and N of the only spring that I found along this route. Worked up the canyon to the saddle between the

Lilleland 1933.

Itinerary

July 31.

High Range Sand E of camp and the lower nearer ridge. Walked over saddle in direction of 2nd pool in Burned Corral Canyon - saw - a cotton-tail, a Eutamias dorsalis and a Eutamias m. pictus. Saw a flicker. Near the second pool I shot a black-headed crossbill (Zamelodia melanocephala).

Aug 1.

Started for home at 8³⁰ am. Travelled by way of Calloway's Ranch, (Current P.O.) Eureka, Austin, Fallon, and camped E of Sparks for the night. At or near Austin, saw a large red-tailed hawk swoop down and pick some rodent off the highway - beating a smaller marsh hawk out of the prey.

Aug 2

Started off at 4⁴⁵ am. Had breakfast at Reno; stopped at Truckee for three hours while waiting for a wheel and brake adjustment on the Dodge Truck. Left Truckee 10⁴⁵ am. Stopped at Colfax 1¹⁵ pm. for lunch - Arrived in Berkeley 5⁴⁵ pm. Four-ninths of party completed trip - 3 continued in Nevada with Leo - 2 left party third week on account of illness - Very successful trip -

Lilleland 1933

Eutamias m. pictus

July 3.

Toiyana Range, 1 mi E Jefferson 7600 ft., Nye Co., Nev.

Shot two in Sawmill Canyon about $2\frac{1}{2}$ mi. above camp. Large boulders and rock slides characterized this part of canyon. Elevation about 8000 feet.

July 5

Shot a female on Ridge, about $1\frac{3}{4}$ mi E of camp. Interesting that on this same ridge I shot both Eutamias dorsalis and Callospermophilus.

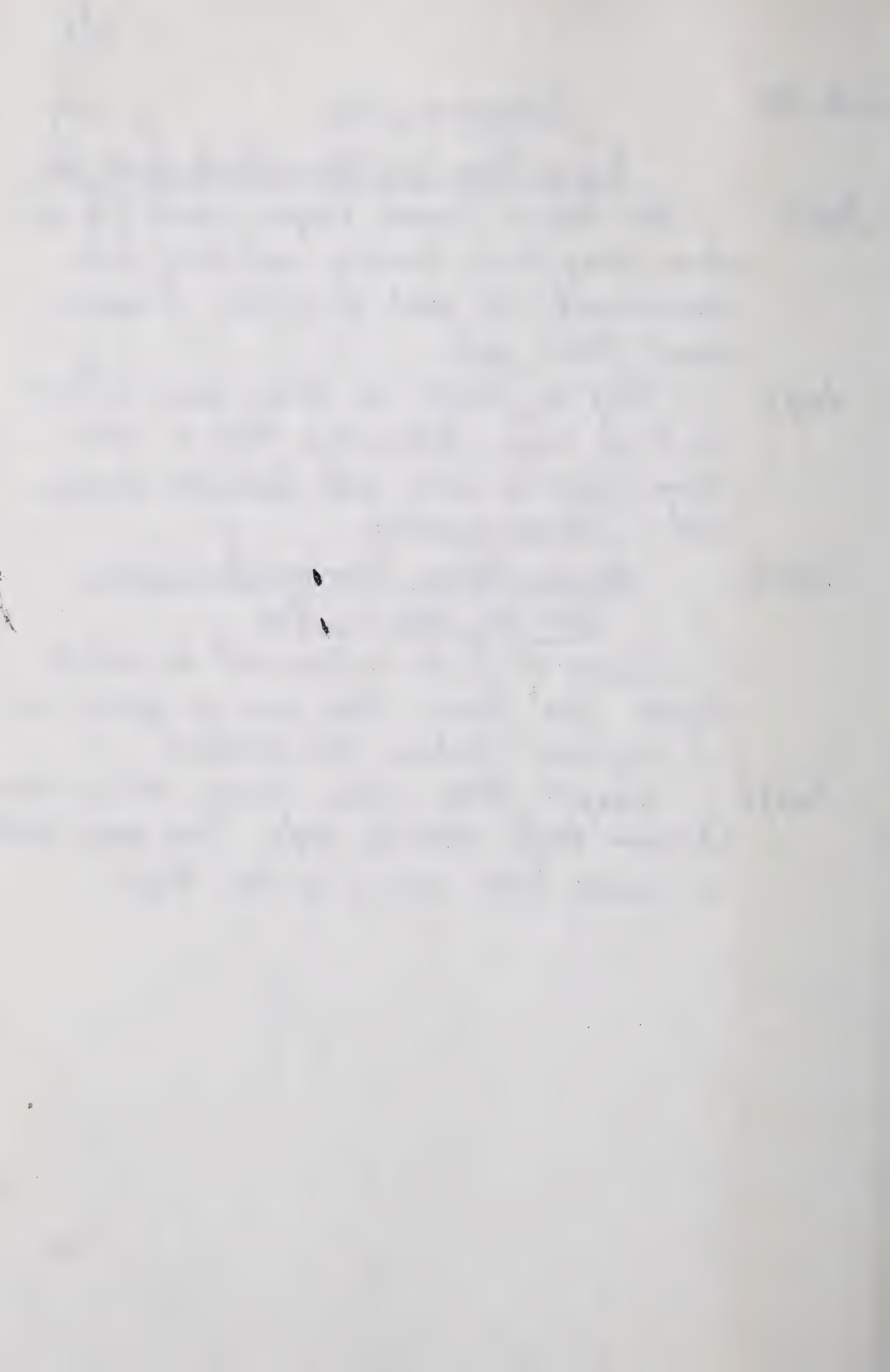
July 13.

Monitor Range, Greenmonster Canyon,
1500 feet, Nye Co., Nev.

Caught a ♀ in a trap set in water course for shrew. This was in upper end of meadow (Indian's cow pasture)

July 14.

Caught three along stream and on banks. One was badly eaten by ants. Two were taken in mouse traps - one in a Rat trap.



Lilleland 1933
July 10.

Eutamias quadrivittatus.

Hot Creek Range, 8 mi. W Tybo, 6700 ft.,
Nye Co., Nev.

Shot a ♀ on top of divide E and S of
Camp $2\frac{1}{4}$ mi. Very rocky ledges. Specimen
perched on top of rock. Elevation 6900 ft.

Shot one $\frac{4}{5}$ of a mi above camp S
side of canyon. Elevation 6750 feet (approx.)

Monitor Range Greenmonster Canyon
1500 feet, Nye Co., Nev.

July 14.

Shot a ♀ in mountain mahogany grove
about 3 mi from camp. In rather poor
pelage. Soil sandy, large boulders nearby.

Lilleland 1933

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Eutamias dorsalis

July 5 Toquima Range $1\frac{3}{4}$ mi E Jefferson, 7800 ft
Nye Co., Nev.

July 10 One specimen shot. ♀ On rock-low ridge.
Hot Creek Range, 8 mi W Tybo, 6700 ft,
Nye Co., Nev.

Shot two females. One taken in a
pinion coming down trunk at a spot
about 200 feet above shepherders cabin.

The other was taken as it climbed up
on a small juniper on S side of canyon,
nearer camp ($\frac{1}{5}$ of a mi) Formation -
knolls spotted with large rocks. Calling to
another specimen when I saw her.

July 11. Walking up canyon about 5¹⁵ am.
Saw Eutamias dorsalis on rocky ledge.
Had always understood that Eutamias did
not appear until after sun shone on burrow
or rock ledge. There was one up and out
certainly before the sun reached him. Taken
on north side of canyon about $\frac{3}{10}$ of a mile
above camp. First male taken.

Littleland 1933

Perognathus nevadensis

Hot Creek Valley, $6\frac{1}{2}$ mi. N Hot Creek 5900 ft.,

Nye Co., Nev.

July 18

Nine specimens taken. Here P. nevadensis outnumbered by far all other species. Vegetation, low and foliage poor. Soil gravelly and rather hard. Slope gently to E.

Hot Creek Valley 4 mi. N Hot Creek,

5900 ft., Nye Co., Nev.

July 18

Four specimens taken. Location nearer creek - soil in spots a bit lighter than preceding locality.

N End Reveille Valley, Old Mill, 6200 ft.,

Nye Co., Nev.

July 22.

One specimen taken. Soil rather sandy

Railroad Valley, $9\frac{1}{2}$ mi. E New Reville,

5200 ft., Nye Co., Nev.

July 25

Took 2 species. Sandy knolls on N side of dry alkali lake. Chrysothamnus and Atriplex covered knolls

Lilleland

Pernognathus parvus

July 8

Monitor Valley, 8 1/2 mi E Toquima Peak,
7600 ft., Nye Co., Nev.

2 specimens caught. Level country - occasional sand or gravel dunes. Rather sparse vegetation - mostly Artemesia tridentatus.

July 22.

N End Renville Valley, Old Mill, 6200 ft.,
Nye Co., Nev.

Took four species. Floor of valley E of camp at Old Mill. Atriplex and Artemesia covered ground. Soil grayish - very little gravel.

Lilleland 1933

46

Perognathus formosus.

N End Reveille Valley, Old Mill, 6200 ft., Nye Co., Nev.

July 22. Took two young species. Soil rather loose, covered with heavy growth of Atriplex and Artemisia tridentatus.

Zuinn Canyon Mts, Big Creek 5800 ft.,
Nye Co., Nev

July 24. Took 3 adult specimens. Interesting contrast in locality between this and Reveille Valley - here we found small grassy meadows, cottonwoods, willows etc.

Lilleland 1933.

Dipodomys ordii columbianus

Hot Creek Valley, $6\frac{1}{2}$ mi N Hot Creek 5900 ft., Nye Co., Nev.

July 18.

Took one specimen. Soil gravelly, vegetation sparse.

July 19

Hot Creek Valley, $\frac{4}{5}$ mi S Hot Creek, 5900 ft.,

Nye Co. Nev.

Took a large female. Soil slightly reddish, and gravelly. High growing *Artemisia*, ~~growth~~.

July 24

Quinn Canyon Mts., Big Creek 5800 ft.,

Nye Co., Nev.

Took a adult close to stream near a clump of willows. No hole nearby as far as I could discover.

Lilleland 1933

Dipodomys m. levipesHot Creek Valley, 1/4 mi W Hot Creek,
5900 ft., Nye Co., Nev.

July 19.

Took 3 specimens, 2 ♂ and 1 ♀. Traps were set on both sides of Road to Fish Lake. Soil very gravelly. Two were taken less than 6 feet from ditch running into alfalfa patch; the other 20 feet from Road on opposite side.

Hot Creek Valley, 3 1/2 mi E Hot Creek
5650 ft., Nye Co., Nev.

Took 3 ♀ and 1 ♂. Soil variable, hog wallow type. Mounds well marked with holes in and around bushes.

Railroad Valley, 1 1/2 mi. E New Reveille,
5200 ft., Nye Co., Nev.

Took 1 specimen. Light sandy knoll, with intermittent growth of Chrysothamnus and Atriplex.

Lilleland 1933

Microdipodops megacephalus.

49

July 7. 10 $\frac{1}{2}$ mi. E Toiyama Peak Monitor Valley 7000 ft.,
Nye Co., Nev.

16 specimens taken. S. of Road Running
E from Stone house. Flora - sage (*tridentatus?*)
Ground gently sloping. occasional sand
mounds.

July 9 Ralston Valley, 15 $\frac{1}{2}$ mi NE Tonopah,
5800 ft., Nye Co., Nev.

5 specimens taken. These were trapped
on a small sand mound N of our tempo-
rary camp. Formation somewhat like
hog wallow soil. Specimens seemed darker
in color than those taken in Monitor Valley.

N End Reveille Mts, Old Mill, 6200 ft.,
Nye Co., Nev.

July 22 6 specimens taken. Scattered, but
found mostly in sandy soil. Good growth of
Artemisia - 5 were ♀, 1 ♂ all adults.

Lilleland 1933.

Onychomys leucogaster brevicaudus.

July 20

Hot Creek Valley, $3\frac{1}{2}$ mi E Hot Creek5650 ft., Nye Co., Nev.

Took 1 specimen 25 ft. from road.

Open space, Red soil - scattered bushes
of low growing Artemisia and Atriplex.N End Reveille Valley, Old Mill, 6200 ft.,
Nye Co., Nev.

July 22.

One ♀ taken in sandy soil. Region well
supplied with other species i.e. Perognathus, Microdipodops
etc. Vegetation of high growth.

Lilleland 1933

Peromyscus crinitus.

51

July 8 Monitor Valley, 8½ mi. E Toiyama Peak 7100 ft Nye Co., Nev
2 specimens caught

July 10 Hot Creek Range, 8 mi W Tybo, 6700 ft,
Nye Co., Nev.

1 specimen caught (young) Caught on
Canyon side in Rocky formation.

July 21. Hot Creek Valley, 4 mi. N Hot Creek 6400 ft,
Nye Co., Nev.

Took four specimens. Found 5 - 20 feet
from stream, in rather small rocks

July 24 Zinn Canyon Mts., Big Creek 5800 ft, Nye Co., Nev.

Took four specimens Equally divided between
stream floor and low rocks.

Lilleland 1933

52

Peromyscus maniculatus

July 8 Monito Valley, 8 1/2 mi E Toquima Peak, 7100 ft., Nye Co., Nev.
16 specimens taken hilly country - Pinion and juniper trees.

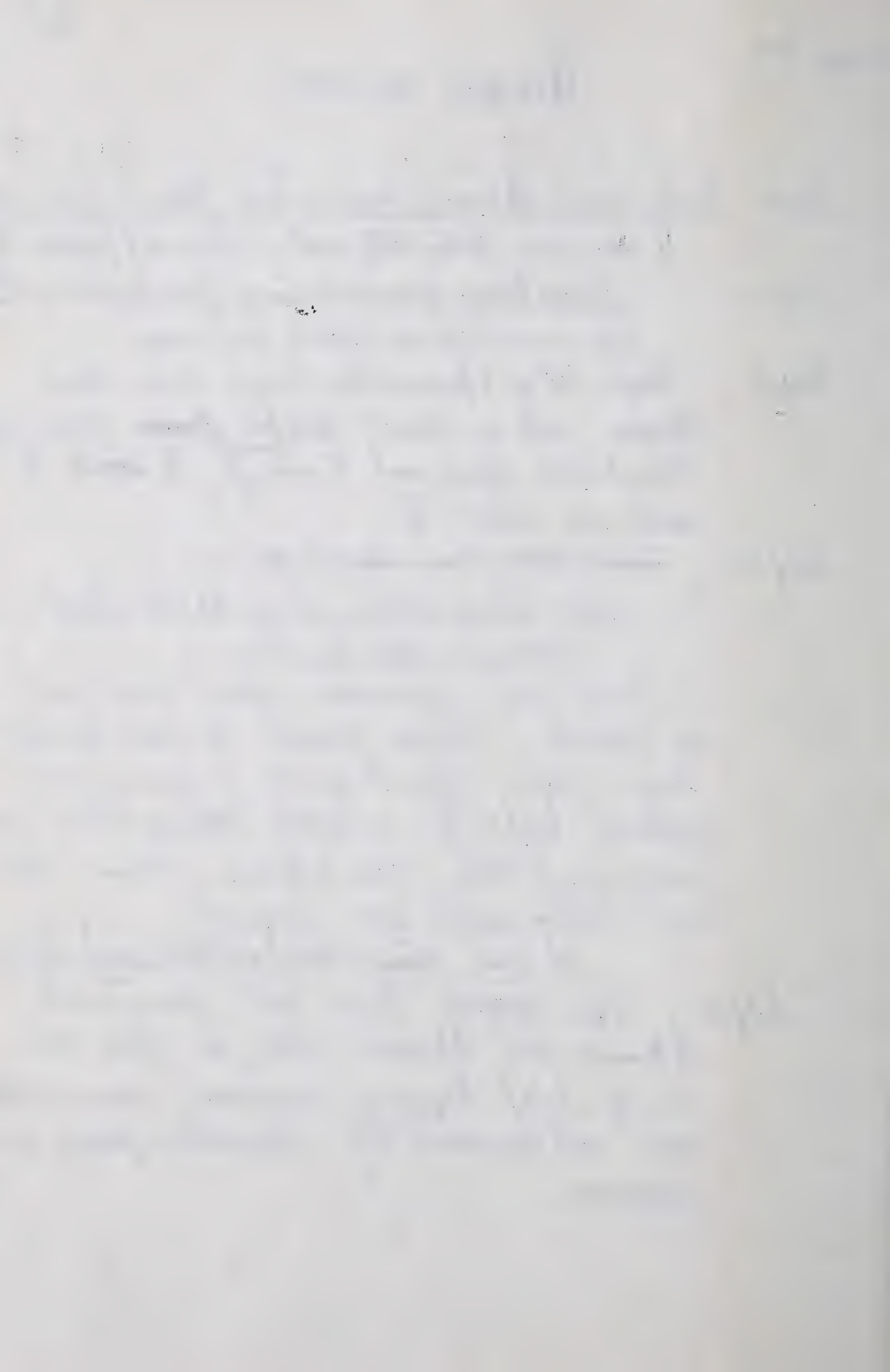
July 12 Monitor Range, Greenmonster Canyon, 7500 ft., Nye Co., Nev.
3 specimens taken on hillside N of camp

July 13 Traps set in Greenmonster Canyon Creek along stream and on banks yielded eleven specimens. Several were young, and 5 were ^{young} ♂, 2 adult ♂ and one adult ♀.

July 21 → ~~Took six along rocks at~~
Hot Creek Valley, 4 mi N Hot Creek
6400 ft., Nye Co., Nev.

Took six specimens along creek and on banks. These seemed to have unusually large ears. Good growth of grass, and scattered beds of so called 'blazing stars' and Penstemons (blue) characterize stream. Willows and Cottonwoods are frequent.

July 22 N End Raville Valley, Old Mill, 6200 ft., Nye Co., Nev.
Two species. Loose soil - covered with Artemisia and Atriplex. Here for first time in my brief trapping experience 'maniculatus' was outnumbered by Perognathus parvus and formosus.



Lilleland 1933

53

Peromyscus truei.

Zinn Canyon Mts., Burned Corral Canyon
7000 ft., Nye Co., Nev.

July 29.

Took five specimens. These were all taken along Rocky crest of low Range S of our Campsite. Ephedra, wind battered junipers and Artemisia tridentatus characterize flora. Also mountain mahogany. *Neotoma lepida* was taken in same Ridge.

Lilleland 1933

Microtus mordax

54

July 1. Toquima Range, 1 mi. E Jefferson, 7600 ft.,
Nye Co., Nev.

One specimen taken.

July 8. Monitor Valley 8½ mi. E Toquima Peak,
7100 ft., Nye Co., Nev.

One specimen taken.

July 13 Monitor Range, Greenmonster Canyon, 7500 ft.,
Nye Co., Nev.

One ♂ taken along stream. Meadows on
both sides. Open canyon.

July 14 Same locality as above took three
young. Two were badly chewed up in the
head region by ants.

Lilleland 1933.

Sylvilagus idahoensis.

55

July 8.

Monitor Valley, 8½ mi. E Toquima Peak, 7100 ft.,
Nye Co., Nev.

One specimen shot. Young ♂ Taken in
low sage up in mouth of canyon n/ of
stone house.

1. The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The second part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe. The third part of the paper is devoted to a detailed discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the universe.

Lilleland 1933

Phrynosoma platyrhinus

56

July 9.

Ralston Valley 15½ mi. NE Tonopah, 5800 ft.,
Nye Co., Nev.

One specimen caught. ♂ Returning from
collecting traps saw specimen on mound,
picked him up. slow moving.

Hot Creek Valley, 2-10 mi N Hot Creek,
5900 ft., Nye Co., Nev.

Collected 24 specimens with E. R. Hall and
J. R. Arnold. Collected along road, in car.
Specimens uniform in size - one small - *Atriplex*
and *Artemisia* - growing. Soil gravelly.

